



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,216	09/19/2005	John Leonello Casci	JMYS-118US	1580
23122	7590	03/10/2009		
RATNERPRESTIA P.O. BOX 980 VALLEY FORGE, PA 19482			EXAMINER ZIMMER, ANTHONY J	
			ART UNIT 1793	PAPER NUMBER
			MAIL DATE 03/10/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/522,216

**Applicant(s)**

CASCI ET AL.

**Examiner**

ANTHONY J. ZIMMER

**Art Unit**

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 6, 8, 11 and 13-26 is/are pending in the application.
- 4a) Of the above claim(s) 1, 6, 8 and 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI-08)  
Paper No(s)/Mail Date 9/19/2005

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claim(s) 1, drawn to a getter.

Group 2, claim(s) 6 and 11, drawn to a method of forming a getter.

Group 3, claim(s) 8, drawn to an electrical, electronic, or optoelectronic apparatus.

Group 4, claim(s) 13-26, drawn to a method for gettering oxygen.

The inventions listed as Groups 1-4 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The common technical feature is the getter of claim 1. However, the getter of claim 1 is found in the prior art as explained in the restriction requirement of 9/29/2008. Thus, the common technical feature is not a special technical feature, and the groups lack unity.

The election of Group 4, claims 13-26, in applicant's response of 12/1/2008 is acknowledged. Claims 1, 6, 8 and 11 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 12/1/2008.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13-26 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 13 includes the limitation "placing a getter....in the sealed enclosure." The specification does not support such a limitation because such a process step is not disclosed in the passages indicated by applicant in remarks of 12/1/2008 or elsewhere in the original disclosure.

Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "ambient" in claim 15 is a relative term which renders the claim indefinite. The term "ambient" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The examiner will interpret the aforementioned term to be any surrounding temperature and pressure.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 13, 15, 17-22, and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter '445.

In regard to claims 13, 18, and 25-26, Carter teaches oxygen gettering using an oxygen getter wherein elemental nickel with a surface area over 70 m<sup>2</sup>/g is supported on silica to form catalyst particles (shaped solid particles). See claim 4. Carter teaches placing the getter in a reactor (a sealed enclosure with a housing) for gettering. See column 1, line 56 – column 2, line 2. In the examples, Carter describes gettering oxygen by passing oxygen-containing gas over the getter and changing temperatures. In practice, it is common to achieve these ends by using electric devices (pumps, heaters, or cooling apparatuses) that are part of a reactor. Thus the use of the getter in electric reactors (an apparatus) would have been obvious to one of ordinary skill in the art.

In regard to claim 15, Carter teaches ambient conditions. See Examples.

In regard to claim 17, Carter teaches using a getter bed 2 inches thick but does not teach a thickness in the range instantly claimed. See Example 3. However, the thickness of the getter bed is a matter of design choice and routine optimization depending on the particular reactor/apparatus used that fails to produce an unexpected result. The modification of an adsorbent bed thickness is routine practice when adjusting to different reactor configurations.

In regard to claim 19, Carter teaches that alumina can be used. See column 3, lines 35-39.

In regard to claims 20-22, Carter is silent in regard to the pore volume. However, the getter of Carter appears to be the same as that of the instant invention as it has substantially identical properties and the same composition as discussed above. See MPEP 2112 and 2112.01.

Claims 14, 16, and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter '445 in view of DeRosa '358.

In regard to claims 14 and 16, Carter does not teach a shaped pellet or tablet or the getter in a circular, rectangular, triangular, or polygonal shape. However, it would have been obvious to one of ordinary skill in the art to modify Carter with DeRosa because DeRosa teaches forming a getter into pellets, beads, bricks etc (circular and rectangular shapes). See [0080] and claims 75-76. One of ordinary skill in the art would have been motivate to use such a form in order to facilitate easy handling. Furthermore,

changes in shape are a matter of choice which are obvious absent persuasive evidence that a particular combination is significant. See MPEP 2144.04.

In regard to claims 23-24, Carter does not teach a binder. However, it would have been obvious to one of ordinary skill in the art to modify Carter with DeRosa because DeRosa teaches using an oxygen getter with a binder. The required binders of claim 24 were routinely used binders. One of ordinary skill in the art would have been motivated to make such a modification in order to impart the capability to remove water and/or organic vapors from a gas stream. See [0019] of DeRosa.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Krueger '062, Weltmer '723, Tamhankar '224, Golden '302, and Joshi '572 teach oxygen getters and processes of oxygen gettering.

Jain '869 and Hoke '627 teaches catalysts with compositions similar to the claimed getter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY J. ZIMMER whose telephone number is (571)270-3591. The examiner can normally be reached on Monday - Friday 7:30 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1793

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ajz

/Steven Bos/  
Primary Examiner, Art Unit 1793